AMENDMENTS TO THE SPECIFICATION:

Please amend the title as follows:

~~Information Processing Apparatus~~ Apparatuses, Methods, and Computer-Readable Media for Interrupt Control, ~~Interrupt Process Control Method, and Computer Program~~

Please amend the specification as follows:

Please replace paragraph [0001] on page 1, with the following amended paragraph:

The present invention relates to an information processing apparatus, an interrupt process control method, and a computer program. More specifically, the present invention relates to an information processing apparatus, an interrupt control method, and a computer program for setting [[an]] a main operating system (OS) for controlling an interrupt process in a system including a plurality of [[OS's]] OSs in order to decrease interrupt mask time of the entire system, improve interrupt response, and achieve efficient data processing.

Please replace the paragraph [0002] on page 1, with the following amended paragraph:

In a multi-operating system (OS) having a plurality of [[OS's]] OSs in a single system, each OS can execute respective ~~process~~ processes [[and]] on hardware common to the system, such as a central processing unit (CPU) and a memory, [[is]] successively switched in time ~~sequence~~ sequences.

Please replace the paragraph [0003] on pages 1-2, with the following amended paragraph:

Scheduling of processes (tasks) of a plurality of [[OS's]] OSs is executed by a partition management software program, for example. If an OS(α) and an OS(β) coexist in a single system with the process of OS(α) being a partition A and the process of OS(β) being a partition B, the partition management software program determines the scheduling of the partition A and the partition B, and executes the process of the [[OS's]] OSs with the hardware resources allocated based on the determined scheduling.

Please replace the paragraph [0004] on page 2, with the following amended paragraph:

Patent Document 1 discloses a task management technique of a multi-OS [[os]] system. According to the disclosure, tasks to be executed by a plurality of [[OS's]] OSs are scheduled with a priority placed on a process having urgency.

Please replace the paragraph [0006] on page 3, with the following amended paragraph:

If a plurality of processes are performed in parallel using the logical processor, the physical processor is used by scheduling the plurality of logical processors. More specifically, the plurality of logical processors uses the physical processor in a time-sharing manner.

Please replace the paragraph [0007] on page 3, with the following amended paragraph:

In the multi-OS, hardware resources such as physically available processors are limited. A physical processor, currently used by one OS, cannot be used by another OS. A duration throughout which the processor cannot be used by ~~the other~~ another OS ~~processor~~ is referred to as an interrupt mask period. As the interrupt mask period is prolonged, the efficiency of the entire system is decreased.

Please replace the paragraph [0008] on pages 3-4, with the following amended paragraph:

It is thus desirable to provide an information processing apparatus, an interrupt control method, and a computer program for setting [[an]] a main OS for controlling an interrupt process in a system including a plurality of [[OS's]] OSs in order to decrease interrupt mask time of the entire system, improve interrupt response, and achieve efficient data processing.

Please replace the paragraph [0009] on page 4, with the following amended paragraph:

In accordance with one aspect of the present invention, an information processing apparatus processes data for a plurality of [[OS's]] OSs. The plurality of [[OS's]] OSs includes a main OS controlling an interrupt process and a sub OS. The main OS stores status information as to whether the sub OS is in an interrupt-enabled

state or an interrupt-disabled state, and controls the interrupt process to perform one of

an interrupt process execution and an interrupt process reserve in response to the

generation of the interrupt based on the status information.

Please replace the paragraph [0010] on page 4, with the following amended

paragraph:

In the information processing apparatus of one embodiment of the present

invention, the main OS stores interrupt process status information as to whether the

interrupt process is in progress or in reserve, and resumes the interrupt process

execution in response to the transition of the sub OS between the interrupt-enabled

state and the interrupt-disabled state.

Please replace the paragraph [0011] on pages 4-5, with the following amended

paragraph:

In the information processing apparatus of one embodiment of the present

invention, the sub OS notifies the main OS of the status information as to whether the

sub OS is in the interrupt-enabled state or the interrupt-disabled state, and the main OS

updates the status information of the sub OS in response to the notification from the sub

OS.

Please replace the paragraph [0013] on pages 5-6, with the following amended

paragraph:

In the information processing apparatus of one embodiment of the present invention, the main OS performs status management based on a status table containing the status information of the sub OS and the interrupt process status information as to whether the interrupt process is in progress or in reserve. If an interrupt intended for the sub OS is generated and the main OS determines based on the status table that the sub OS is in the interrupt-disabled state, the main OS registers the interrupt in the status table as a reserved interrupt. If an interrupt intended for the sub OS is generated and the main OS determines based on the status table that the sub OS is in the interrupt-enabled state, the main OS performs interrupt control depending on whether the OS operating on a processor is either the main OS or the sub OS in a manner such that

(a) if the main OS is in operation, the main OS

(a1) executes the interrupt process in response to a high-priority interrupt, or

(a2) reserves the interrupt process in response to a low-priority interrupt, and that

(b) if the sub OS is in operation, the sub OS executes the interrupt process regardless of the priority level of the interrupt.

Please replace the paragraph [0014] on pages 6-7, with the following amended paragraph:

In the information processing apparatus of one embodiment of the present invention, the main OS performs status management based on a status table containing the status information of the sub OS and the interrupt process status information as to whether the interrupt process is in progress or in reserve. If an interrupt intended for the

main OS is generated, the main OS performs interrupt control depending on whether

the OS operating on a processor is either the main OS or the sub OS in a manner such

that

    (a) if the main OS is in operation, the main OS executes the interrupt process

regardless of the priority level of the interrupt, and that

    (b) if the sub OS is in operation, the sub OS

    (b1) executes the interrupt process in response to a high-priority interrupt, or

    (b2) reserves the interrupt process in response to a low-priority interrupt.